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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/919,555
Filing Date: July 31, 2001
Appellant(s): CATTELL ET AL.

Bret Field
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 15 March 2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is somewhat correct. The issues are more accurately summarized below.

(7) Grouping of Claims

The rejection of claims 1, 2, 4-16 and 45-54 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

Applicant's grouping of the claims is incorrect in that rejected claims 47-54 are not included in any of the groups. The correct grouping is provided below:

I. Claims 1-2, 4-16 and 45-54 under 35 U.S.C. 102(e) over application 09/775,387 (U.S. Patent Application Publication No. 2002/0102559).

II. Claims 1-2, 4-16 and 47-54 under 35 U.S.C. 102(e) over U.S. Patent No. 6, 180, 351.

III. Claims 1-2, 4-16 and 47-54 under 35 U.S.C. 103(a) over U.S. Patent No. 5,968,728 in view of U.S. Patent Application Publication No. 2002/0086319.

IV. Claims 45 and 46 under 35 U.S.C. 103(a) over U.S. Patent No. 5,968,728 in view of U.S. Patent Application Publication No. 2002/0086319 and U.S. Patent No. 6,215,894.

V. Claims 1-2, 4-16 and 45-54 under the judicially created doctrine of obviousness type double patenting over claims 1-19 of U.S. Patent No. 6, 180, 351.

VI. Claims 10, 13-16 the judicially created doctrine of obviousness type double patenting over claims 21-24 of application 09/775,387 (U.S. Patent Application Publication No. 2002/0102559.

The rejection of Group VI is herein withdrawn in view of cancellation of the conflicting claims 21-24 of application 09/775,387..

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

2002/0102559	Cattell	01-2001
6,180,351	Cattell	01-2001
5,968,728	Perttunen et al	10-1999
2002/0086319	Ellison et al	11-2000
6,215,894	Zeleny et al	14-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, 4-16, 45-54 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/775,387 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Regarding Claim 1 and 47, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array and/or instruction of processing the array; and shipping the fabricated array and forwarding the array related data to a location remote form where the array is fabricated (¶ 6) wherein the instructions for reading or processing the array includes

information regarding feature errors which are detected, communicated to the fabrication station and added to the memory before subsequent users expose the arrays to a sample (¶ 45 and Fig. 6) wherein during array fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Regarding Claim 2 and 48, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array or instruction of processing the array; wherein array related data is saved in association with an identifier (i.e. bar code, ¶ 40); applying the identifier to the substrate or housing carrying the substrate; and shipping the fabricated array and forwarding the array related data to a remote location (¶ 39-41) wherein the instructions for reading or processing the array includes information regarding feature errors which are detected, communicated to the fabrication station and added to the memory before subsequent users expose the arrays to a sample (¶ 45 and Fig. 6) and wherein during fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Regarding Claim 4 and 49, Cattell discloses the method wherein the chemical moieties are biopolymers (¶ 24).

Regarding Claim 5 and 50, Cattell discloses the method wherein the biopolymers are DNA (¶ 24).

Regarding Claim 6 and 51, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the

memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (¶ 36- 40).

Regarding Claim 7 and 52, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 1, # 356 and 358 (¶ 40 and Fig. 6).

Regarding Claim 8 and 53, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (¶ 40 and Fig. 6).

Regarding Claim 9 and 54, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (¶ 40).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data said data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array or instruction of processing the array; wherein array related data is saved in association with a map identifier; applying the identifier to the corresponding substrate or housing carrying the corresponding substrate; and shipping the fabricated array and forwarding the array related data to a remote location (¶ 27 and 40) and wherein during fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are biopolymers (¶ 24).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (¶ 24).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location (¶ 36-40).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium the method additionally comprising shipping the portable storage mediums to multiple remote locations (¶ 40 and Fig. 6).

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage mediums are shipped with the corresponding fabricated array to the same remote location from which the set of biopolymers used in fabricating the array was received (¶ 40 and Fig. 6).

Regarding Claim 16, Cattell discloses the method further comprising applying a same communication address to each of the substrates or housings wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (¶ 40).

Regarding Claim 45-46, Cattell discloses the method wherein the array related data includes an indication as to whether a particular type of control probe is present i.e. the data includes "any biological information on an array feature" (¶ 39 e.g. complement). Because a control probe is biological and because the data of Cattell includes any biological information, the data of Cattell includes an indication as to whether a particular type of control probe is present.

2. Claims 1, 2, 4-16 and 47-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Cattell, H. (U.S. Patent No. 6,180,351, filed 22 July 1999).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1 and 47, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array has been exposed to a sample saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 5, lines 41-48); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and 33-43 and Claims 10-11) and wherein

the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 2 and 48, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array has been exposed to a sample saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 5, lines 41-48; wherein array related data is saved in association with an identifier (Column 4, lines 33-43); associating the identifier with the array (Column 4, lines 34-37 and Claim 12); and shipping the fabricated array and forwarding the array related data to a remote

location (Column 3, line 55-Column 4, line 9 and Claims 10-11) and applying the identifier to the substrate or housing carrying the substrate (Column 3, line 64-Column 4, lines 2) and wherein

the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 4 and 49, Cattell discloses the method wherein the chemical moieties are biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 5 and 50, Cattell discloses the method wherein the biopolymers are DNA (Column 2, lines 60-64 and Claim 4).

Regarding Claim 6 and 51, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 3, lines 28-43 and Column 12, lines 39-43).

Regarding Claim 7 and 52, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 4, # 356 and 358 (Column 9, lines 65-Column 10, line 4).

Regarding Claim 8 and 53, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (Column 9, lines 65-Column 10, line 4).

Regarding Claim 9 and 54, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (Column 10, line 65-Column 50).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array is exposed to a sample saving in a memory array related data said data comprising, instructions for reading the array or instruction of processing the array (Column 5, lines 41-48); wherein array related data is saved in association with a map identifier (Column 4, lines 33-43); applying the identifier to the corresponding substrate or housing carrying the corresponding substrate (Column 4, lines 34-37 and Claim 12); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and Claims 10-11 and Claim 14) and wherein the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (Column 2, lines 60-64 and Claim 4).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location (Column 3, lines 28-43 and Column 12, lines 39-43).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium the method additionally comprising shipping the portable storage mediums to multiple remote locations (Column 9, lines 65-Column 10, line 52 and Claim 14)

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage mediums are shipped with the corresponding fabricated array to the same remote location from which the set of biopolymers used in fabricating the array was received (Column 3, line 55-Column 4,line 10).

Regarding Claim 16, Cattell discloses the method further comprising applying a same communication address to each of the substrates or housings wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (Column 10, line 65-Column 50 and Claim 14 (d) shipping each of the fabricated arrays....**to one** or more of the remote locations, lines 36-63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 4-16 and 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent Application Publication No. 2002/0086319A1, filed 13 November 2000).

Regarding Claim 1 and 47, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading

the array or instruction of processing the array (Column 3, lines 54-67) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 2 and 48, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array related data is saved in association with an identifier i.e. id code; wherein the identifier is associated with the array by applying the identifier to the substrate or housing carrying the substrate (Column 4, line 61-Column 5, line 7 and Fig. 10-12) (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related

data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 4 and 49, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 5 and 50, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 6 and 51, Perttunen et al teach the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 8, lines 38-54).

Regarding Claim 7 and 52, Perttunen et al teach the method wherein the memory comprises a portable storage medium e.g. bar code, the method further comprising shipping the portable medium to a remote location to the end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146).

Regarding Claim 8 and 53, Perttunen et al teach the method wherein the portable storage medium is shipped to the same remote location as the array i.e. user (Column 8, lines 35-42).

Regarding Claim 9 and 54, Perttunen et al teach the method wherein the substrate has applied thereto array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (¶ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer via the address as taught by Ellison et al (¶ 8).

Regarding Claim 10, Perttunen et al teach a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array related data is saved in association with an identifier i.e. id code; applying the identifier to the corresponding substrate or corresponding housing (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to

shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 11, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 12, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 13, Perttunen et al teach the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location Column 8, lines 38-54).

Regarding Claim 14, Perttunen et al teach the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium wherein the array is used by an end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) but they do not specifically teach shipping the portable storage mediums to multiple remote locations. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end

user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 15, Perttunen et al teach the method wherein each of the portable storage mediums and the corresponding fabricated array are used by the at the same remote location i.e. end user from which the set of biopolymers used in fabricating the array was received (Column 7, line 40-Column 8, line 62).

Regarding Claim 16, Perttunen et al teach the method wherein each of the substrates comprise an identification code which identifies array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (¶ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer proving the array samples via the address as taught by Ellison et al (¶ 8) for the obvious benefits of maintaining correct correlations between the customer and the array.

4. Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent Application Publication No. 2002/0086319A1, filed 13 November 2000) as applied to Claims 1 and 2 above and further in view of Zelany et al (U.S. Patent No. 6,215,894, filed 26 February 1999).

Regarding Claims 45 and 46, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Perttunen et al teach the method wherein the array related data generates mappings of the array and directs operation of the scanning system (Column 3,lines 54-67) but they do not specifically teach that the data includes an indication as to whether a particular type of control probe is present on the array. However, control probes were well known in the art at the time the claimed invention was made as taught by Zelany et al who teach that the control probes are useful for calibrating and adjusting the scanner thereby facilitating scanning (Column 3, lines 19-25). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the data of Perttunen et al by including data as to

whether a control probe is present on the array for the expected benefit of adjusting and calibrating the scanner as taught by Zelany et al (Column 3, lines 19-25).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 2, 4-16 and 45-54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,180,351. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating an addressable array and differ only in the patent claims recite the additional method step (a) of receiving from a remote station information on a layout of the array and associated identifier and (e) forwarding a second copy of the local identifier to the remote station. However, the open claim language "comprising" recited in the instant claims encompasses the additional method steps of the patent claims. Furthermore, the patent defines the identifier as containing machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Therefore, the instant claims are obvious in view of the patent claims.

(11) Response to Argument

The claimed invention is drawn to a method for generating an addressable array of chemical moieties. The method includes the steps of depositing moieties onto different regions

of the substrate, saving in a memory array related data comprising instructions for selecting an algorithm, shipping the array and forwarding the array related data.

This method is well known in the art, as cited above. The claimed method differs from the prior art only in the content of the data/instructions saved in the memory. The method merely requires the step of saving the data/instructs in a memory. The claimed method does not utilize the saved data/instructions or require algorithm selection. Because the method does not utilize the saved data, the data does not alter or limit any function of the claimed method of generating an array. In summary, the saved data consists of instructions without actual performance thereof required. Therefore, the content of the data does not limit the claimed method.

Appellant asserts the type of information that is saved defines the step of array manufacturing and in particular "the type of information that is saved into memory according to the claimed method further defines the purpose that is served by the recited element". Applicant points to MPEP § 2173.05(g) wherein functional limitations are discussed. The passage cited by Appellant relates to whether functional limitations are indefinite under 35 U.S.C. 112, second paragraph. It is noted that the claims are not rejected as being indefinite. Furthermore, the cited passage clearly defines a functional limitation as "an attempt to define something by what it does.....is often used .....to define a particular capability or purpose that is served by the recited element". The instant claims are drawn to saving data comprising instructions in a memory. The saved data serves no purpose in the claimed method. The data merely exists as stored data. Because the saved data serves no purpose in the claimed method, the data does not meet the definition of a functional limitation as asserted.

Appellant asserts that *In re Nagi* is not applicable to the instant method claims because the claims at issue in *In re Ngai* are drawn to a kit. The argument has been considered but is not found persuasive because *In re Ngai* affirms the Board stating "the only difference between

the prior art and Claim 19 is the *content* of the instructions. Finding that the content of the instructions was not "functionally related" to the kit, the Board concluded that claim 19 should be rejected as anticipated by prior art". *In re Nagi* is relevant to the instant discussion because as with *In re Nagi*, the content of the instructions is **not** functionally related to the claimed subject matter. As stated above, the claims are drawn to saving data comprising instructions. The claimed method does not utilize the saved data/instructions and therefore, the saved data is not functionally related to the claimed subject matter. Furthermore, the fact pattern used in the *In re Nagi* decision is relevant to the instant claims. The instantly claimed stored data is reasonably viewed as being within a kit even though it is within a method claim. Therefore, the fact pattern is the same as that used in the *In re Nagi* decision.

Regarding the '387 application, Appellant points to passages describing methods for using the '387 array. The cited passages are noted, but are not relevant to the instantly claimed methods for manufacturing an array.

What is relevant to the instant claims is that the'387 application teaches the claimed method of array manufacture including saving in a memory array related data i.e. saving biological data, step 434, Fig. 6 which includes information used by the user in reading the array as defined in ¶ 39-40 wherein during array fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Appellant asserts that the Examiner's categorization of the data content as a mere compilation of facts is incorrect because the instantly claimed instructions are data structures comprising functional descriptive material. Appellant points to MPEP § 2106IV (B)(1) wherein "functional descriptive material" is defined as "data structures and computer functions which impart functionality when employed as a computer component." The citation is noted and found very relevant in that the passage defines functionality as "when employed as a computer

component". The instant claims do not employ the data structures. In contrast, the instant claimed method stores the data structures for employment at some other time within some other context. The instantly claimed method does not employ the data structure. As such, the data structures of the instant claims do not meet the definition of functional descriptive material as asserted.

Appellant asserts that the instant specification teaches methods of using the array made by the claimed method. In these unclaimed embodiments, the stored data is used. From this, Appellant asserts the stored data meets the definition of functional descriptive material. The argument has been considered but is not found persuasive because as Appellant notes, the stored data, as taught by the specification is used in a completely different method i.e. method of using the array. The instant claims are drawn to methods of array manufacture, not array use. Hence, the cited passage does not define the stored data as being functionally descriptive within the context of the instant claims because the stored data does not provide functionality within the instantly claimed method.

Appellant cites *In re Lowry* wherein an example is provided wherein stored information performs a function. The citation is noted, however the facts differ from the instant case. As noted, *In re Lowry*, addresses the use of stored data e.g. facilitate addition, deletion and modification of information. In the instantly claimed methods the stored information does not perform any function and therefore is not functional within the context of the claimed methods.

Regarding the '351 patent, Appellant presents arguments similar to those discussed above concerning the content of the saved data. The arguments have been considered but are not found persuasive for the reasons discussed above.

Regarding Perttunen in view of Ellison, Appellant asserts that the data saved by Perttunen is array mapping information and but does not teach the mapping information can direct a processor in reading an array or processing data from an array and therefore, the stored instructions differ from those claimed. Appellant further asserts that while Ellison

teaches shipping arrays to end users, Ellison fails to teach saving the claimed machine readable information. Appellant states that because Perttunen and Ellison fail to teach a positive method step of saving the instructions as claimed, the references fail to render the invention obvious. The arguments have been considered but are not found persuasive because, as stated above, the reference, in combination teach the claimed method of manufacturing an array and differ only in the content of the stored data/instructions. Because the stored data/instructions are non-functional data within the context of the claimed method, and because the references teach the method steps of array manufacture, the references teach the method as claimed.

Regarding Perttunen in view of Ellison and Zelany, Appellant asserts that Zelaney fails to make up for the deficiency of Perttunen and Ellison and therefore, the addition of Zelaney does not obviate the claimed method. The argument has been considered but is not found persuasive for the reasons stated above regarding Perttunen and Ellison.

Throughout the Appeal Brief, Appellant asserts that the instantly claimed method and the prior art differ in the content of the stored data/instructions.

It is the examiner's opinion that the courts and MPEP are clear regarding stored data. For example, the MPEP states:

"Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component." (MPEP § 2106 IV(B)1).

In the instant case, the stored data is not employed within the context of the claimed method. Hence, the stored data does not meet the definition of "functional descriptive material" as defined by the MPEP.

Furthermore, the courts have stated that when the only difference between the prior art and the claimed invention is the content of the instructions wherein the instructions are not

functionally related to the claimed subject matter, the prior art anticipates the claim (see *In re Ngai* 70 USPQ2D 1862).

In the instant case, the difference between the claimed method and the prior art is the content of the saved data/instructions. Because the saved data is not functionally related to the claimed subject matter i.e. the data is not used within the claimed method, the prior art anticipates the claims.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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